

AMENDMENTS TO THE DRAWINGS:

The attached sheets of drawings, Figures 3A-B, 4A-C, 5A-B, 6A-B, 7A-B, and 8A-B, correspond to original Figures 4A-B, 5A-C, 6A-B, 7A-B, 8A-B, and 9A-B, respectively. Original Figures 3A-B are deleted.

The original Figures 3A-B were inadvertently included in the patent application, but were neither listed in the Brief Description of the Drawings nor described in the Detailed Description. The remaining drawings have been relabeled and the reference numbers changed to conform the drawings to the original Detailed Description.

No new matter is introduced since the changes simply conform the Figures to the Detailed Description.

Attachment: Replacement Sheets

REMARKS

Claims 1 and 3 have been rejected under 35 USC 102(b) as being anticipated by Lee, Jr. et al. Claims 5 and 7 have been rejected under 35 USC 103(a) as being unpatentable over Lee, Jr. et al taken with Pollack et al. Claims 4 and 8 have been rejected under 35 USC 103(a) as being unpatentable over Lee, Jr. et al. taken with Magiawala et al. Claim 15 is rejected under 35 USC 103(a) as being unpatentable over Lee, Jr. et al. taken with Katou. Claims 1, 5, and 7 have been further rejected under 35 USC 102(b) as being anticipated by Walsh. Claims 2, 6, and 9-10 have been rejected under 35 USC 103(a) as being unpatentable over Walsh taken with Giraldin. Claims 11 and 12 have been rejected under 35 USC 103(a) as being unpatentable over Walsh taken with Chomet et al. Claims 13 and 14 have been rejected under 35 USC 103(a) as being unpatentable over Walsh taken with Chomet et al. and Wanted. Claim 15 has been rejected under 35 USC 103(a) as being unpatentable over Walsh taken with Heller. Claim 16 has been rejected under 35 USC 103(a) as unpatentable over Walsh taken with Rodgers. Claim 17 has been rejected under 35 USC 103(a) as being unpatentable over Walsh taken with Heller et al. and Slaght. Claim 18 has been rejected under 35 USC 103(a) as unpatentable over Walsh taken with Heller et al. and Hirata et al.

The office action in this case objects to the drawings for (1) failing to show the feature recited in Claims 2 and 6 and (2) containing figures that do not correspond with the Detailed Description. Claim 14 has been rejected under 35 USC §112, second paragraph, for being indefinite by including the phrase "for example." Applicants have cancelled Claims 2 and 6 and have presented new drawings that conform to the Detailed Description, as set forth in Amendments to the Drawings above. Claim 14 has been amended to overcome the rejection.

Referring now to the rejection of the claims under the references, applicants would first note that the claims are all limited to "passive" components. As defined by applicants at page 3, lines 23-25, the word "passive" is limited "to circuit components that need no power source to operate and that are not semi-conductor components." To further codify these limitation, independent Claim 1 has been amended to specify a

group of passive components "consisting of" resistors, capacitors, inductors, and connecting conductors such that power sources and semiconductor components are excluded from the network components. Applicants have further specified that the components are formed as printed components on a substrate to clarify that these printed circuits are not printed circuit boards into which discrete components are installed.

The following table sets out the teachings of the various references with regard to the above recited features of applicants' invention:

Reference	Power Needed	Semiconductor components	Printed Components
Lee, Jr. et al.	Yes - Col. 4, lines 66-67	Yes - Col 5, lines 18-20; Col. 5, lines 26-36	No - Figure 2
Pollock	No teaching	Yes - Col. 4, lines 9-14	No - Col. 10, lines 19-35
Magiawala et al.	Yes - Col. 4, lines 23-27; Col. 5, lines 10-14	Yes - Col. 4, lines 28-39	No - Fig. 2
Katou	Yes - Col. 3, lines 48-54	Yes - Col. 4, lines 60-63	No - Col. 3, lines 48-54
Walsh et al.	Both powered and not powered - Col. 1, lines 14-22	Yes - Col. 2, lines 1-5	No - Col. 2, lines 1-5
Giraldin	Yes - Col. 2, lines 47-59; Col. 3, lines 5-20	Yes - Col. 3, lines 19-20	No - Col. 3, lines 19-20
Chomet	No - passive tuned circuit; not RFID	No - Col. 3, lines 30-33	Yes - Col. 3, lines 46-50
Wanted	Yes - Col. 2, lines 28-36; Col. 7, lines 48-52	Yes - Col. 11, lines 5-15	No - Col. 11, lines 5-15
Heller	Yes - Col. 6, lines 24-64	Yes - Col. 6, lines 24-64	No - Col. 6, lines 24-64
Rodgers	Maybe - Col. 9, lines 59-61	No teaching	No teaching
Slaught	Yes - Fig. 2	Yes - Fig. 2	No - Fig. 2

In view of the teachings of the references, as set out above, applicants respectfully traverse the rejection of Claims 1-18. Claims 1 and 3 and not anticipated by Lee, Jr. et al. for the reason that Lee, Jr. et al. teach only circuitry that is powered

and that includes semiconductor components. The only components that are taught are discrete components and not components that are printed onto a circuit board.

Likewise, Claims 5 and 7 are patentable over Lee, Jr. et al. taken with Pollock et al. Pollock et al. fails to teach whether the device has a power source or not, but does teach only a device with semiconductor components and that is formed from discrete components mounted onto a printed circuit board, as shown in each of the exemplary reference sections in the rejection.

Claims 4 and 8 are patentable over Lee, Jr. et al. taken with Magiawala et al. Magiawala et al. teach only a powered device with semiconductor components. Only discrete components are taught.

Claim 15 is patentable over Lee, Jr. et al. taken with Katou. Katou teaches only a powered device with semiconductor components. Only discrete components are taught. Further, Katou teaches only a transmitter; there is no teaching of a device that is "configured to reflect" an RF signal back to a base station. There is no showing or suggestion on combining a device that transmits a binary code with a reflectance device.

Applicants further traverse the rejection of Claims 1, 5, and 7 as anticipated by Walsh. While Walsh does teach devices that can be either powered or not powered, Walsh teaches only devices with semiconductor components and networks that are formed from discrete components rather than printed components.

Claim 10 is patentable over Walsh taken with Giraldin. Giraldin teaches only a powered device using semiconductor components. There is no teaching of printed components. Further, there is no showing or suggestion about combining the powered device of Giraldin with any unpowered embodiment of Walsh.

Claims 11 and 12 are patentable over Walsh taken with Chomet et al. Chomet et al. do teach an unpowered device without semiconductor components that may be printed onto a substrate. But Chomet et al. do not teach any device configured to reflect an RF signal. Rather, Chomet et al. teach a passive tuned circuit (Col. 2, lines 1-2) so that when "the tuned circuit is carried between the transmitter and receiver there is absorption of energy from the radiation field and an unbalance is produced in the receiver which is used to actuate a suitable alarm." (Col. 2, lines 4-7). There is no

suggestion to combine the absorption circuit of Chomet et al. with the reflectance circuit of Walsh, particularly where absorption is fundamentally the opposite of reflection.

Claims 13 and 14 are patentable over Walsh taken with Chomet et al. and Wanted. Wanted teaches a powered device with semiconductor components, and there is no teaching of printed circuit components. Wanted further fails to teach the recited limitation that the apparatus includes "a tab that when torn off said tag affects said modulated reflected signal" The teaching at Col. 5, lines 33-40) is that shaking the device causes a signal that acts to open the circuit and break a connection, not for a tab that can be torn off to affect the device.

Claim 15 is patentable over Walsh taken with Heller et al. Heller et al. teach a powered device with semiconductor components. There is no teaching of printed components. Further, Heller et al. is directed to an optical device using infra-red communications (Col. 6, lines 63-68) rather than RF. There is no showing or suggestion to combine the optical device of Heller et al. with the RF device of Walsh.

Claim 16 is patentable over Walsh taken with Heller et al. and Rodgers. The combination of Walsh and Heller et al. is discussed above. Rodgers adds nothing to Walsh and Heller et al. Indeed, Rodgers has no teaching on a tag other than a brief mention at Col. 3, lines 59-66. The phased antennas taught by Col. 13, lines 39-62, are located on a transmitter, not the tag (see Figure 10, antennas 172 and 173) and do not teach the tag antenna recited by applicants for the reflectance coding apparatus

Claim 17 is patentable over Walsh taken with Heller et al. and Slaght. The combination of Heller et al. and Slaght is discussed above. Slaght teaches only a powered device with semiconductor components. There is no teaching of printed circuit components. Further, Slaght teaches only a transponder that generates and transmits a signal in response to an interrogation signal (Col. 2, lines 25-42). The beacon taught by Slaght does not provide a reflected response, but a generated response.

Applicants respectfully assert that Claims 1, 3-5, and 7-18, as now amended, are in condition for allowance. The Examiner is requested to allow Claims 1, 3-5, and 7-18 and to pass this case to issue.

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Applicants' attorney would be pleased to discuss any of the issues in this case with the Examiner if the Examiner considers such a discussion would assist in placing the case in condition for allowance.

Respectfully submitted,

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